

**Tennessee Valley Authority**

**Government Performance and Results Act  
(GPRA)**

# **Annual Performance Plan FY 2001**

**February 2000**



# Table of Contents

---

Introduction.....	A - 3
Mission Statement .....	A - 3
General Goals and Objectives.....	A - 4
Strategies to Achieve Goals.....	A - 4
Relationship of TVA's General Goals and Strategies.....	A-11
to the Performance Goals	
GPRA Program Activity Structure .....	A-13
Descriptions of Performance Goals and Means .....	A-15
to Verify and Validate Values *	
• Flood Storage Availability (PPF).....	A-16
• Discretionary Zone Attainment (PPF) .....	A-17
• Summer Lake Level Attainment (PPF) .....	A-18
• Dams that Meet Federal Guidelines for Dam Safety (PPF) .....	A-19
• Days Navigable Waterway is Available from Knoxville.....	A-20
to Paducah (PPF)	
• Shipper Savings (PPF) .....	A-21
• Aeration System Availability (PPF) .....	A-22
• Minimum Flow Achievement (PPF) .....	A-23
• Hydrologic Units with Resource Condition Maintained .....	A-24
or Improved (PPF)	
• Reservoirs with Completed Comprehensive Reservoir .....	A-25
Land Plans (PPF)	
• Critically Eroded Sites Stabilized (PPF) .....	A-26
• Percent Occupancy at Campgrounds (PPF).....	A-27
• Environmental Research Center (ERC) Resource.....	A-28
Conservation and Recovery Act (RCRA) Cleanup	
(Percent Complete) (ERC)	
• Reportable Environmental Events (All).....	A-29
• Delivered Cost of Power (PPF).....	A-30
• Bond Rating (PPF) .....	A-31
• Total Debt Outstanding (PPF).....	A-32
• Wholesale Customers with Continuing Contracts (PPF).....	A-33
• System Reliability (Load Not Served) (PPF).....	A-34
• Fossil Plant Equivalent Availability Factor (PPF).....	A-35
• Nuclear Plant Net Capacity Factor (PPF).....	A-36
• Conventional Hydro Equivalent Availability Factor (PPF) .....	A-37
• Capital Investment Leveraged (PPF) .....	A-38
• Jobs Added and Retained (Previously Jobs Created) (PPF).....	A-39

\* The TVA Budget Category with which each indicator is associated is indicated in parentheses (see page A-15)

## **INTRODUCTION**

---

This document is the Tennessee Valley Authority's (TVA) Performance Plan for FY 2001 as required by the Government Performance and Results Act of 1993 (GPRA). Information is expressed in terms required by GPRA and the Office of Management and Budget (OMB) Circular A-11. This Performance Plan is covered by the Tennessee Valley Authority's current Strategic Plan that was submitted in accordance with GPRA to Congress in September 1997.

TVA was not aided by any non-federal parties in the development of this plan.

Historically, TVA's programs have fallen into two separate but interrelated activities – the power program and tax-funded resource management programs. In response to direction from Congress and the Administration, beginning in FY 2000, all of TVA's resource management programs will be funded from power revenues, user fees, and sources of income other than appropriations.

This plan has been modified to reflect the transfer of Land Between The Lakes (LBL) National Recreation Area from TVA to the Department of Agriculture in accordance with the LBL Protection Act of 1998. This transfer became effective in October 1999 due to the lack of appropriations to TVA for LBL operations.

TVA's strategic plan and performance plan cover its power and resource management programs.

## **MISSION STATEMENT**

---

The mission of the Tennessee Valley Authority, is to develop and operate the Tennessee River system to minimize flood damage and improve navigation, and to provide energy and related products and services safely, reliably, and at the lowest feasible cost to residents and businesses in the multi-state Tennessee Valley region. TVA's integrated management of the entire Tennessee River watershed optimizes the benefits of the water resource. Major functions of the corporation include:

- Management of the Tennessee River system for multiple purposes including (in order of priority) flood control, navigation, power generation, water quality, recreation, and economic development;
- Generation of electricity;
- Sale and transmission of electricity to wholesale and large industrial customers;
- Investment in economic development activities that generate a higher standard of living for citizens of the Tennessee Valley;
- Stewardship of TVA assets and provision of recreation opportunities on federal lands entrusted to the corporation; and
- Research and technology development that addresses environmental problems related to TVA's statutory responsibilities for river and land management and power generation.

## TVA General Goals and Objectives

---

1. Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.
2. Continue to be the electrical energy supplier of choice for customers in the Tennessee Valley by offering adequate supplies of electricity and energy-related services at competitive prices.
3. Manage the natural resources of the Tennessee Valley region in an environmentally sustainable manner.
4. Maintain the value of federal assets entrusted to TVA while supporting their wise use by and for the public in support of TVA's mission.
5. Positively impact the capacity for economic development in the Tennessee Valley region.

## Strategies to Achieve Goals

---

### **Goal 1**      **Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.**

- **Strategy 1.A**      *Minimize flood damage by operating the river system according to best management practices with flood control as a priority.*

Performance Goal:      Flood Storage Availability

#### Relationship between the General Goal, Strategy, and Performance Goal

Flood storage availability indicates TVA's readiness to control damaging floods. The reservoir system is operated based on mandates of the TVA Act and broad policy last reviewed as part of the Lake Improvement Plan in 1991. Based on these guidelines, monthly flood storage availability targets were established. Operation of the system in accordance with these targets ensures that the priority placed on flood damage avoidance is maintained.

Achievement of this objective requires that TVA retain responsibility for integrated river operation, that existing world-class expertise be retained, and that investments in information technology be made as needed to maintain and improve data collection and modeling capabilities.

- **Strategy 1.B**      *Maintain a navigable commercial waterway from Knoxville to Paducah while making system improvements to improve safety and increase shipper savings.*

Performance Goals:      Days Navigable Waterway Is Available from Knoxville to Paducah  
Shipper Savings

#### Relationship between the General Goal, Strategy, and Performance Goal

Commercial shippers rely on TVA to maintain locks and other navigation system components in operable condition and to operate the river system to minimize disruptions to navigation. These performance goals monitor TVA's effectiveness in meeting customer expectations and document the transportation cost savings to shippers using the Tennessee River system.

Achievement of this objective requires that TVA retain responsibility for integrated river operation, that the existing cooperation between TVA and the US Army Corps of Engineers (USACE) be continued, and that resources be available to maintain locks and related facilities. The concrete growth problem at Chickamauga Dam Lock will make it necessary to complete the design and construction of a replacement lock prior to its forced closure which is presently projected to occur between 2006 and 2010. Otherwise, navigation to points above Chattanooga will be terminated, and the continuous Knoxville-to-Paducah navigable waterway authorized by the TVA Act and completed by TVA in the 1940's will no longer be provided.

#### **• Strategy 1.C**      *Provide acceptable water quality*

Performance Goals:    Aeration System Availability  
                                 Minimum Flow Achievement

#### Relationship between the General Goal, Strategy, and Performance Goal

Ensuring that aeration systems are functioning and that minimum water flow rates are maintained helps TVA minimize adverse environmental impacts to aquatic habitats and potable water quality associated with dam operations.

Achievement of this objective requires that TVA retains the responsibility for integrated river operation and that cooperative relationships between TVA, state and federal agencies, and various regional river system user groups be continued.

#### **• Strategy 1.D**      *Optimize the value of hydro generation subject to flood control, navigation, and water quality constraints*

Performance Goals:    Discretionary Zone Attainment  
                                 Conventional Hydro Equivalent Availability Factor

#### Relationship between the General Goal, Strategy, and Performance Goal

The Discretionary Operating Zone is bounded by the flood guide and the minimum operation guide. Under TVA's river system operation methodology, power value is optimized by operating tributary storage reservoir levels within the discretionary operating zone whenever possible. Conventional hydro equivalent availability factor measures the hydro generation system's ability to provide power when called upon. If units are unavailable, TVA loses its ability to utilize the natural flow of water provided by the river in the optimal manner.

Achievement of this objective requires that TVA retains the responsibility for integrated river operation and maintains the human and information technology capabilities required to provide an integrated daily operating plan based on real-time hydrologic information. It also requires the capability to maintain the operability of TVA's hydro generation infrastructure.

#### **• Strategy 1.E**      *Support recreational uses of the river system and associated federal lands.*

Performance Goals:    Summer Lake Level Attainment  
                                 Percent Occupancy at Campgrounds

#### Relationship between the General Goal, Strategy, and Performance Goal

In its 1991 Lake Improvement Plan, TVA made commitments to the user public to maintain tributary lakes at specified levels during June and July to support recreational uses which have significant economic development impacts for the Tennessee Valley. TVA campgrounds at

reservoirs and recreation areas are valued by outdoor recreation enthusiasts. These performance goals measure TVA's effectiveness in meeting the identified expectations of these user communities.

Achievement of this objective requires that TVA retain the responsibility for integrated river operation and for the federal lands associated with the reservoir system and that resources are available to maintain and operate these facilities.

---

**Goal 2      Continue to be the electrical energy supplier of choice for customers in the Tennessee Valley by offering adequate supplies of electricity and energy-related services at competitive prices.**

- **Strategy 2.A**      *Prepare for utility deregulation by reducing TVA's delivered cost of power to 3.4 - 3.5 cents/kWh by 2007.*

Performance Goal:      Delivered Cost of Power

Relationship between the General Goal, Strategy, and Performance Goal

TVA will remain the energy supplier of choice in a deregulated environment only by being able to meet market prices for electricity. TVA's estimate of the 2007 delivered market price of power in the TVA region is in the range of 3.4 to 3.5 cents/kWh.

Annual targets for delivered cost of power will be established that support the accomplishment of the 2007 target.

Achieving this strategic objective will require further development of cost management and operating efficiency competencies and success in reducing TVA's debt (Strategy 2.B). Additional workforce productivity will require process improvements, innovative work structures, and the implementation of technology that allows automation and improved efficiency of facilities.

- **Strategy 2.B**      *Increase agency flexibility by altering the TVA cost structure from the current high fixed-to-variable cost relationship to a structure that is better able to adjust to a volatile marketplace.*

Performance Goal:      Total Debt Outstanding

#### Relationship between the General Goal, Strategy, and Performance Goal

TVA will only be able to meet the market price for electricity by reducing its high fixed costs for interest (now about 28% of TVA's total cost of power). As TVA reduces and manages its outstanding debt, thus reducing its interest costs, it will shift its cost structure to one that is better able to adjust to the volatility of a deregulated energy market.

Achievement of this objective will require a reduction in interest costs which requires that TVA maintains its excellent bond rating, continues to develop innovative financing options, and reduces outstanding debt. Debt reduction will depend on TVA's ability to maximize cash flow through limiting capital spending, controlling costs, and continued improvement in operation and maintenance processes which is dependent on a highly skilled workforce.

- **Strategy 2.C**      *Build stakeholder support and value by developing opportunities for mutual support and partnership.*

Performance Goal:      Wholesale Customers with Continuing Contracts

#### Relationship between the General Goal, Strategy, and Performance Goal

TVA's wholesale customers, themselves public power providers, must also prepare for the coming deregulated energy market. TVA must be proactive in developing contractual arrangements that provide needed flexibility while ensuring that cost obligations are fairly allocated. TVA's relationships with its customers must benefit all parties in order for TVA to maintain its position as the Valley's energy supplier of choice. The selected performance goal will monitor TVA's performance in developing and maintaining these win-win relationships.

Achievement of this objective will require developing innovative pricing structures that provide opportunities for customers to control their costs and modifying contracting arrangements to provide customers with increased flexibility.

- **Strategy 2.D**      *Ensure that TVA's electric power generation and transmission system has the capacity to meet customer demand while maintaining required levels of reliability and power quality.*

Performance Goals:      System Reliability (Load Not Served)  
                                    Fossil Plant Equivalent Availability Factor  
                                    Nuclear Plant Net Capacity Factor

#### Relationship between the General Goal, Strategy, and Performance Goal

As deregulation is implemented, the focus of some suppliers on maximizing profits may have detrimental effects on service reliability. Based on input from customers, TVA will continue to emphasize high reliability while meeting market price. These performance goals will highlight TVA's commitment to ensuring that electricity is available and reliable.

Achievement of this objective will require continued improvements in operating and maintenance processes and the ability to acquire new technologies that improve system performance such as those identified in TVA's Integrated Resource Plan. A highly skilled, flexible workforce will also be required to provide demanded levels of service at reduced costs.

- **Strategy 2.E** *Maintain investor confidence that TVA will continue to be competitive and able to meet debt obligations.*

Performance Goal: Bond Rating

Relationship Between the General Goal and the Performance Goals

While TVA has taken actions to cap its debt, there will still be a need to refinance maturing debt. This performance measure monitors TVA's success in maintaining its position as an attractive investment.

Achievement of this objective will require that TVA maintain its excellent bond rating and continue to develop innovative financing mechanisms.

---

---

### **Goal 3      Manage the natural resources of the Tennessee Valley region in an environmentally sustainable manner.**

- **Strategy 3.A** *Operate and maintain TVA lands and facilities in accordance with environmental regulations.*

Performance Goals: Reportable Environmental Events

Environmental Research Center Resource Conservation and Recovery Act Cleanup (Percent Complete)

Relationship between the General Goal, Strategy, and Performance Goal

A reportable environmental event (REE) is any occurrence violating regulatory requirements at any TVA facility that triggers a notification to or enforcement action by a regulatory agency. It is TVA's key outcome measurement of environmental compliance.

TVA is mandated by Federal law to complete the cleanup of contaminated sites at the Environmental Research Center (ERC) reservation in Muscle Shoals, Alabama. The Resource Conservation and Recovery Act (RCRA) Corrective Action Program supports the safe cleanup of contamination caused by decades of federally-funded munitions and fertilizer research and development activities at the ERC

Achievement of this objective requires that TVA maintain a current understanding of applicable regulations, that operating procedures ensuring regulatory compliance be developed and implemented, that personnel be trained to carry out these procedures, and that a mechanism be in place to verify compliance.

- **Strategy 3.B** *Improve the hydrologic condition of watersheds in the Tennessee Valley.*

Performance Goal: Hydrologic Units with Resource Condition Maintained Or Improved

Relationship between the General Goal, Strategy, and Performance Goal

There are 603 hydrologic units that make up the Tennessee River watershed. TVA leads cooperative efforts involving local and regional public and private partners to improve water quality by reducing nonpoint source pollution. Annual assessments identify hydrologic unit status by evaluating stream/reservoir ecological health, customer use, and customer satisfaction.



Achievement of this objective requires that TVA maintains cooperative relationships with watershed user groups, that trained personnel be available to identify and implement correction and protection activities, and that TVA retains the capability to conduct hydrologic assessments.

- **Strategy 3.C**      *Manage reservoir lands to protect cultural resources, reduce erosion, and provide wildlife habitat*

Performance Goal:      Critically Eroded Sites Stabilized

Relationship between the General Goal, Strategy, and Performance Goal

TVA's public shorelines are its most visible and accessible land resource. Left unprotected, erosion will result in deterioration of the beauty and value of public shoreline assets, the loss of shoreline and associated wildlife habitat, and increased nonpoint source water pollution.

Achievement of this objective requires that TVA maintains the resources to develop and implement repair and treatment approaches for shoreline revegetation and to manage public lands to provide wildlife habitat enhancements.

---

---

**Goal 4      Maintain the value of federal assets entrusted to TVA while supporting their wise use by and for the public in support of TVA's mission.**

- **Strategy 4.A**      *Ensure that TVA dams, bridges, and other structures meet applicable federal guidelines and are maintained in a safe manner.*

Performance Goal:      Dams that Meet Federal Guidelines for Dam Safety

Relationship between the General Goal, Strategy, and Performance Goal

TVA is responsible for the inspection, operation, maintenance, and repair of 49 dams, which are between 19 and 87 years old. Concrete growth and deteriorating operation machinery threaten the integrity and operations of spillways, powerhouses, and locks. In accordance with federal guidelines, TVA is modifying its dams to ensure they meet modern-day design criteria for the probable maximum flood and maximum credible earthquake.

Achievement of this objective requires that TVA maintains the human and financial resources required to inspect facilities, assess problems, and design and implement solutions associated with its aging infrastructure.

- **Strategy 4.B**      *Support public uses of federal assets under TVA management that are consistent with statutory responsibilities while protecting the value of those assets for the future..*

Performance Goal:      Reservoirs with Completed Land Management Plans

Relationship between the General Goal, Strategy, and Performance Goal

TVA manages 293,000 acres of public land around reservoir projects spanning seven states. The reservoir system is a nationally important recreation and tourism resource that attracts millions of visits each year from recreationists who enjoy water-based sports and contribute to a \$1 billion industry. Waterfront properties are highly valued and generate demands for growth that often conflict with the protection of public resources and wildlife habitat. TVA manages these potential conflicts with the use of land management plans that establish allowable uses for TVA property.

Achievement of this objective requires that TVA retain the human and financial resources to develop land management plans and establish and monitor land use agreements.

---

---

**Goal 5      Positively impact the capacity for economic development in the Tennessee Valley region.**

- **Strategy 5.A**      *Create and expand opportunities for business and industrial development in the TVA region.*

Performance Goals:    Capital Investment Leveraged  
                                    Jobs Added and Retained (Previously Jobs Created)

Relationship between the General Goal, Strategy, and Performance Goal

TVA's power revenue-financed economic development initiatives focus on expanding and attracting industrial and commercial development based on TVA's low-cost, reliable electric power. These performance goals measure TVA effectiveness in attracting capital investment by key public and private partners and the number of jobs created or retained by firms receiving assistance from TVA or Regional Industrial Development Associations.

Achievement of this objective will require continuing to supply low-cost, reliable electric power, developing partnerships with community and business leaders, providing technical and business services, and marketing the Tennessee Valley power service area.

## Relationship of TVA'S General Goals and Strategies to the Performance Goals

Performance goals are selected to support attainment of the General Goals and Strategies and are expressed as performance measures and annual targets. The following table summarizes information from the previous section and demonstrates the linkages between TVA's General Goals, Strategies, and Performance Goals / Measures.

Two performance indicators originally included in TVA's strategic plan have been omitted from this performance plan. The first is Energy Sales Growth. Annual energy sales have proven to be so strongly influenced by weather variations that this measure was determined to be ineffective. The second is Customer Satisfaction with TVA as a Business Partner and Power Supplier. Performance on this indicator was determined through a customer survey. TVA has decided to replace this survey with in-depth focus group interviews as a better way of determining customer needs.

### TVA GENERAL GOALS, STRATEGIES, AND PERFORMANCE MEASURES

Goals	Strategies	Performance Measures
1. Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.	1.A. Minimize flood damage by operating the river system according to best management practices with flood control as a priority.	<ul style="list-style-type: none"> <li>Flood Storage Availability</li> </ul>
	1.B. Maintain a navigable commercial waterway from Knoxville to Paducah while making system improvements to improve safety and increase shipper savings.	<ul style="list-style-type: none"> <li>Days Navigable Waterway Is Available from Knoxville to Paducah</li> <li>Shipper Savings</li> </ul>
	1.C. Provide acceptable water quality.	<ul style="list-style-type: none"> <li>Aeration System Availability</li> <li>Minimum Flow Achievement</li> </ul>
	1.D. Optimize the value of hydro generation subject to flood control, navigation, and water quality constraints.	<ul style="list-style-type: none"> <li>Discretionary Zone Attainment</li> <li>Conventional Hydro Equivalent Availability Factor</li> </ul>
	1.E. Support recreational uses of the river system and associated federal lands.	<ul style="list-style-type: none"> <li>Summer Lake Level Attainment</li> <li>Percent Occupancy at Campgrounds</li> </ul>

Goals	Strategies	Performance Measures
2. Continue to be the electrical energy supplier of choice for customers in the Tennessee Valley by offering adequate supplies of electricity and energy-related services at competitive prices.	2.A. Prepare for utility deregulation by reducing TVA's delivered cost of power to 3.4 to 3.5 cents/kWh by 2007.	<ul style="list-style-type: none"> <li>Delivered Cost of Power</li> </ul>
	2.B. Increase agency flexibility by altering the TVA cost structure from the current high fixed-to-variable cost relationship to a structure that is better able to adjust to a volatile marketplace.	<ul style="list-style-type: none"> <li>Total Debt Outstanding</li> </ul>
	2.C. Build stakeholder support and value by developing opportunities for mutual support and partnership.	<ul style="list-style-type: none"> <li>Wholesale Customers with Continuing Contracts</li> </ul>
	2.D. Ensure that TVA's electric power generation and transmission system has the capacity to meet customer demand while maintaining required levels of reliability and power quality.	<ul style="list-style-type: none"> <li>System Reliability (Load not Served)</li> <li>Fossil Plant Equivalent Availability Factor</li> <li>Nuclear Plant Net Capacity Factor</li> </ul>
	2.E. Maintain investor confidence that TVA will continue to be competitive and able to meet debt obligations.	<ul style="list-style-type: none"> <li>Bond Rating</li> </ul>

<b>Goals</b>	<b>Strategies</b>	<b>Performance Measures</b>
3. Manage the natural resources of the Tennessee Valley region in an environmentally sustainable manner.	3.A. Operate and maintain TVA facilities in accordance with environmental regulations.	<ul style="list-style-type: none"> <li>• Reportable Environmental Events</li> <li>• ERC RCRA Cleanup (Percent Complete)</li> </ul>
	3.B. Improve the hydrologic condition of watersheds in the Tennessee Valley.	<ul style="list-style-type: none"> <li>• Hydrologic Units with Resource Condition Maintained Or Improved</li> </ul>
	3.C. Manage reservoir lands to protect cultural resources, reduce erosion, and provide wildlife habitat.	<ul style="list-style-type: none"> <li>• Critically Eroded Sites Stabilized</li> </ul>
4. Maintain the value of federal assets entrusted to TVA while supporting their wise use by and for the public in support of TVA's mission.	4.A. Ensure TVA dams, bridges, and other structures meet applicable federal guidelines and are maintained in a safe manner.	<ul style="list-style-type: none"> <li>• Dams That Meet Federal Guidelines for Dam Safety</li> </ul>
	4.B. Support public uses of federal assets under TVA management that are consistent with statutory responsibilities while protecting the value of those assets for the future.	<ul style="list-style-type: none"> <li>• Reservoirs with Completed Land Management Plans</li> </ul>
5. Positively impact the capacity for economic development in the Tennessee Valley region.	5.A. Create and expand opportunities for business and industrial development in the TVA region.	<ul style="list-style-type: none"> <li>• Capital Investment Leveraged</li> <li>• Jobs Added and Retained</li> </ul>

## **GPRA Program Activity Structure**

In accordance with Circular A-11, section 220.8, TVA has developed a GPRA Program Activity Structure by aggregating and consolidating program activities from TVA's budget program and financing schedules. This structure was developed to accommodate the interrelationships between many of TVA's stewardship programs. Specific goals for some non-major program activities are not included in this structure.

## FY2001 TVA GPRA Program Structure

Program Activities	TVA Budget Category	Performance Measure
<ul style="list-style-type: none"> <li>• Daily Reservoir Operations</li> <li>• Regional Water Supply</li> <li>• Shoreline Construction Approvals (Section 26a)</li> </ul>	<ul style="list-style-type: none"> <li>• PPF</li> </ul>	<ul style="list-style-type: none"> <li>• Flood Storage Availability</li> <li>• Discretionary Zone Attainment</li> <li>• Summer Lake Level Attainment</li> </ul>
<ul style="list-style-type: none"> <li>• Dam Safety, Operations &amp; Maintenance</li> <li>• Dam Safety - Capital Improvements</li> <li>• Emergency Preparedness and Operations</li> </ul>	<ul style="list-style-type: none"> <li>• PPF</li> </ul>	<ul style="list-style-type: none"> <li>• Dams That Meet Federal Guidelines for Dam Safety</li> </ul>
<ul style="list-style-type: none"> <li>• Navigation, Operations &amp; Maintenance</li> <li>• Navigation - Capital</li> <li>• Navigation, Waterway Development</li> </ul>	<ul style="list-style-type: none"> <li>• PPF</li> </ul>	<ul style="list-style-type: none"> <li>• Days Navigable Waterway is Available from Knoxville to Paducah</li> <li>• Shipper Savings</li> </ul>
<ul style="list-style-type: none"> <li>• Reservoir Release Improvements, Operations &amp; Maintenance</li> <li>• Reservoir Release Improvements, Capital</li> <li>• River Action Teams</li> <li>• Plant Management</li> <li>• Mosquito Management</li> <li>• Comprehensive Land Strategy</li> <li>• Regional Natural Heritage</li> <li>• Cultural Resources</li> <li>• Land Use Services</li> </ul>	<ul style="list-style-type: none"> <li>• PPF</li> </ul>	<ul style="list-style-type: none"> <li>• Aeration System Availability</li> <li>• Minimum Flow Achievement</li> <li>• Hydrologic Units With Resource Condition Maintained or Improved</li> <li>• Reservoirs with Completed Land Management Plans</li> </ul>
<ul style="list-style-type: none"> <li>• Reservoir Shoreline Erosion Stabilization</li> </ul>	<ul style="list-style-type: none"> <li>• PPF</li> </ul>	<ul style="list-style-type: none"> <li>• Critically Eroded Sites Stabilized</li> </ul>
<ul style="list-style-type: none"> <li>• River Basin Land, Operations &amp; Maintenance</li> <li>• River Basin Land, Capital</li> </ul>	<ul style="list-style-type: none"> <li>• PPF</li> </ul>	<ul style="list-style-type: none"> <li>• Percent Occupancy at Campgrounds</li> </ul>
<ul style="list-style-type: none"> <li>• Environmental Compliance</li> </ul>	<ul style="list-style-type: none"> <li>• PPF, ERC</li> </ul>	<ul style="list-style-type: none"> <li>• ERC RCRA Cleanup (Percent Complete)</li> <li>• Reportable Environmental Events</li> </ul>

Program Activities	Category	Performance Measure
<ul style="list-style-type: none"> <li>Power Generation, Transmission, and Sales</li> </ul>	<ul style="list-style-type: none"> <li>PPF</li> </ul>	<ul style="list-style-type: none"> <li>Delivered Cost of Power</li> <li>Bond Rating</li> <li>Total Debt Outstanding</li> <li>Wholesale Customers with Continuing Contracts</li> <li>System Reliability (Load Not Served)</li> <li>Fossil Plant Equivalent Availability Factor</li> <li>Nuclear Plant Net Capacity Factor</li> <li>Conventional Hydro Equivalent Availability Factor</li> <li>Capital Investment Leveraged</li> <li>Jobs Added and Retained</li> </ul>

ERC - Environmental Research Center  
PPF - Power Program Funded

## **Descriptions of Performance Goals and Means to Verify and Validate Values**

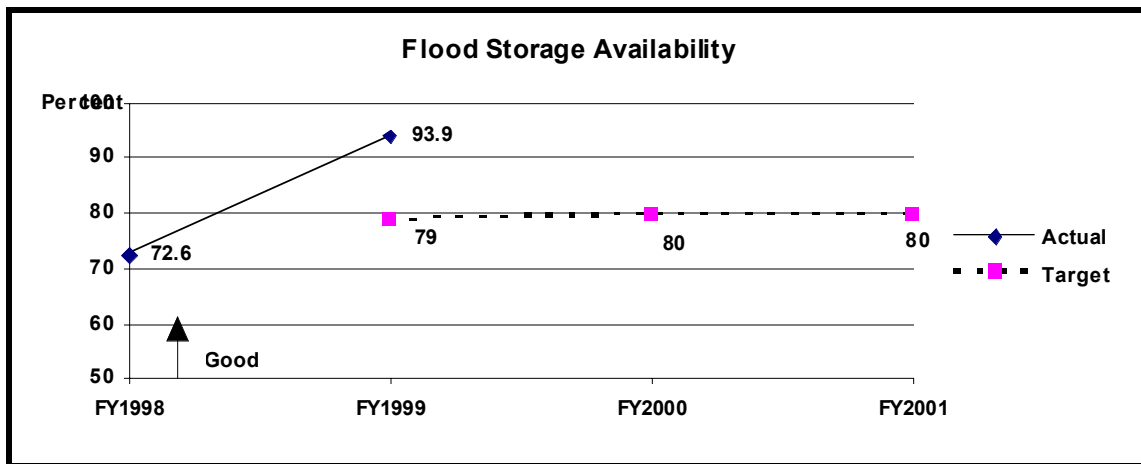
The following pages describe TVA's GPRA performance goals, its FY2001 targets, and how performance will be measured and validated.

**Performance Goal: Flood Storage Availability (PPF)**

TVA General Goal: Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.

TVA Strategy: Minimize flood damage by operating the river system according to best management practices with flood control as a priority.

Description: Flood storage availability indicates TVA's readiness to control damaging floods. The reservoir system is operated based on mandates of the TVA Act and broad policy last reviewed as part of the Lake Improvement Plan in 1991. Based on these guidelines, monthly flood storage availability targets were established for each of TVA's eleven storage projects. Operation of the system in accordance with these targets ensures that the priority placed on flood damage avoidance is maintained.



FY2001 Target: 80%

Target Explanation: While performance on this measure is strongly affected by rainfall patterns, TVA projects a small gradual increase in performance based on planned improvements in computer models and operating procedures.

Measurement and Validation: This performance measure is defined as the percent of project days when actual storage availability is  $\geq$  allocated storage. Ten tributary storage projects are included in this measure; in addition, a measure of the composite eastern system is also included. TVA measures reservoir levels at midnight each day for each of the projects. In a 30-day month, each storage project has a maximum of 30 project days when actual reservoir storage can be equal to or greater than the allocated storage. TVA sums the days when storage meets or exceeds the guideline. For example, if all 10 projects and the eastern composite had reservoir storage levels above those required for 20 of the 30 days, monthly performance would be  $240/360=66.7\%$ . Data are reported monthly and are accumulated over the entire year to determine the annual performance on this measure.

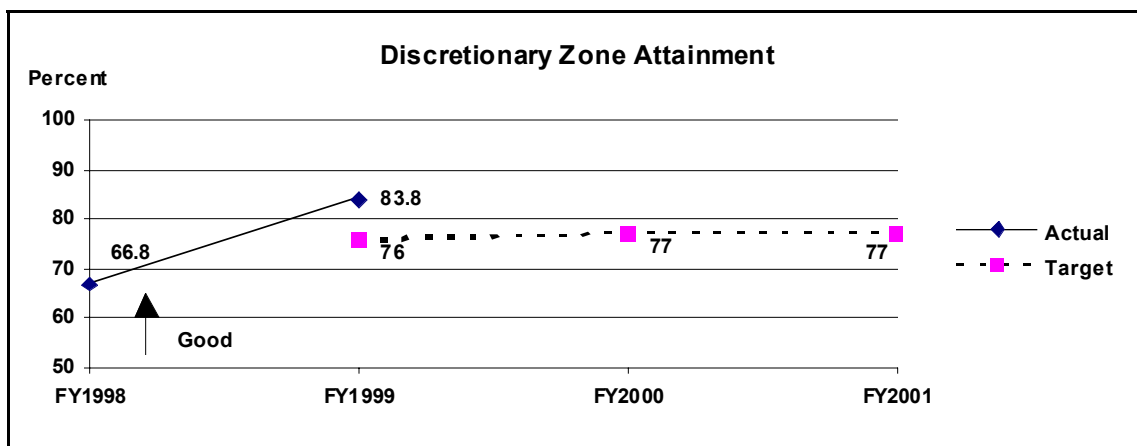


**Performance Goal: Discretionary Zone Attainment (PPF)**

TVA General Goal: Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.

TVA Strategy: Optimize the value of hydro generation subject to flood control, navigation, and water quality constraints.

Description: Valley residents expect TVA to operate the Tennessee River system of reservoirs for multiple benefits, including flood control, navigation, water quality, and hydroelectric generation. To satisfy these requirements, TVA monitors a performance goal that tracks the ability to maximize the flexibility and value of hydropower generation after meeting higher priority objectives. This “discretionary zone” is a region of operation bounded by the flood guide on the top and the minimum operating guide (MOG) on the bottom. Under TVA’s river system operation methodology, power value is optimized by operating tributary storage reservoir levels within the discretionary operating zone whenever possible.



FY2001 Target: 77%

Target Explanation: Outyear targets are based on average rainfall patterns, but reflect improved processes and procedures now being developed.

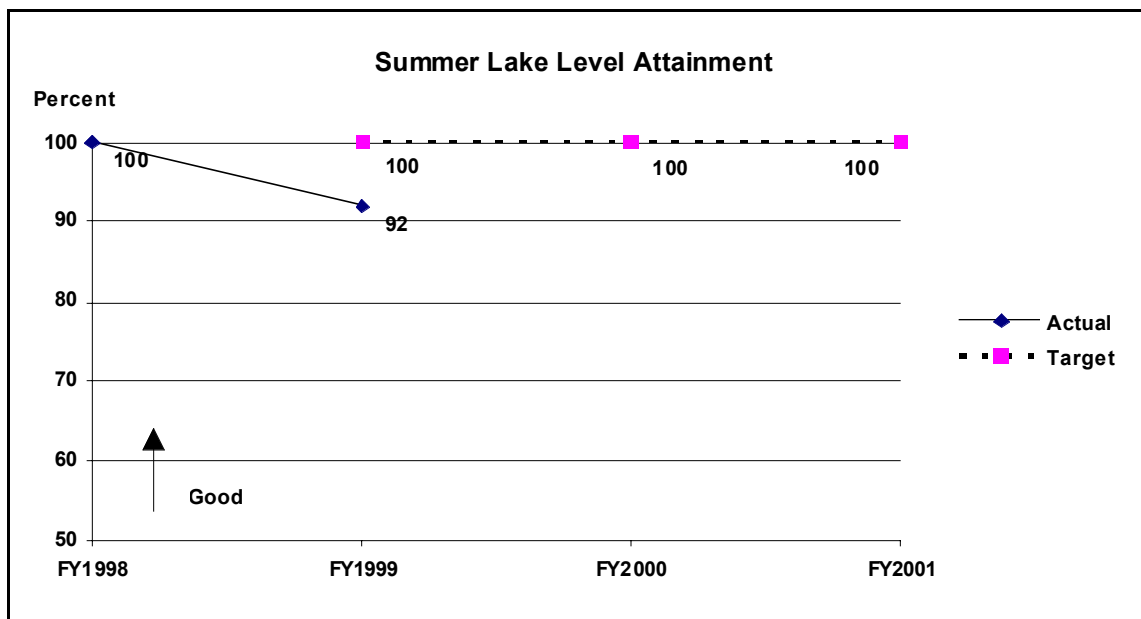
Measurement and Validation: The performance measure is defined as the percent of project days actual reservoir storage is within the discretionary operating zone. Projects included in this measure are the 10 tributary storage projects with MOG curves. TVA measures reservoir levels at midnight each day for each of the 10 storage projects. In a 30-day month, each storage project has a maximum of 30 project days when actual reservoir storage can be within the discretionary operating zone. TVA sums the days when storage was within the zone and divides by the total number of project days. For example, if all 10 projects had reservoir levels within the discretionary operating zone for 25 of the 30 days, monthly performance would be  $250/300=83.3\%$ . Data are reported monthly and are accumulated over the entire year to determine the annual performance on this measure.

**Performance Goal: Summer Lake Level Attainment (PPF)**

TVA General Goal: Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.

TVA Strategy: Support recreational uses of the river system and associated federal lands.

Description: Recreational lake users want TVA to maintain high water levels during the summer. These customers provide regional economic benefits through increased expenditures for recreational activities. In its 1991 Lake Improvement Plan, TVA made commitments to the user public to maintain tributary lakes at specified levels during June and July to support recreational uses which have significant economic impacts for the Tennessee Valley. TVA measures its commitment to these customers by monitoring achievement of targeted minimum water levels during June and July in ten tributary storage reservoirs.



FY2001 Target: 100%

Target Explanation: This performance goal measures achievements in meeting commitments made in the Lake Improvement Plan and shows an aggressive target.

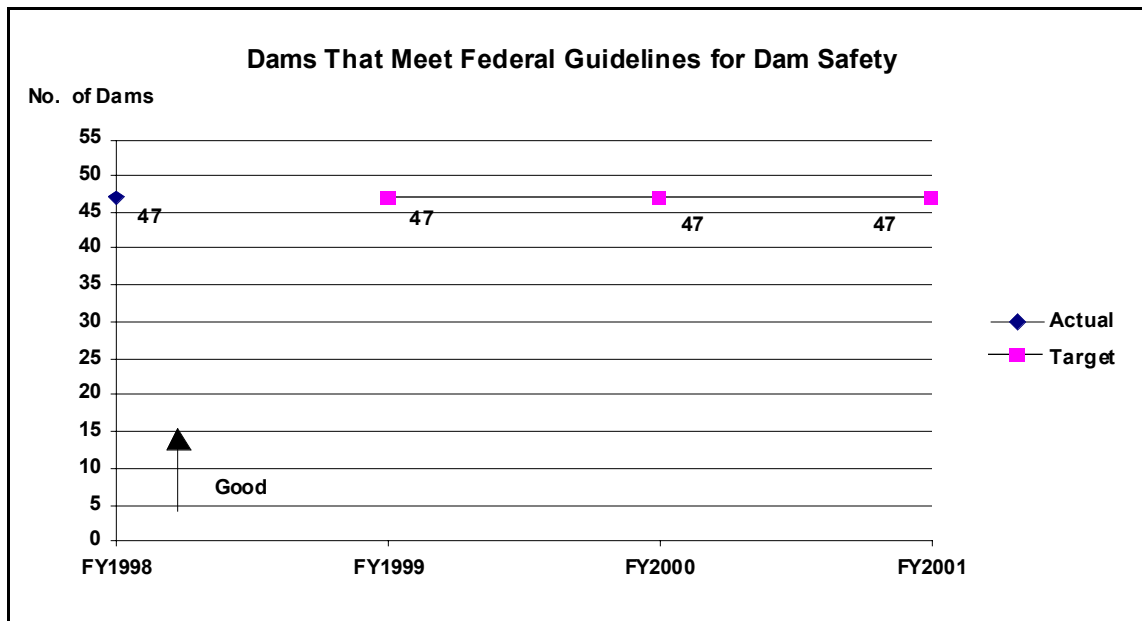
Measurement and Validation: Lake levels for 10 tributary storage projects are measured at midnight from June 1 to July 31 and checked against August 1 levels specified in the Lake Improvement Plan. There is the potential of maintaining summer lake levels for 61 days at each of the 10 reservoirs (610 days total) per the Lake Improvement Plan. If one reservoir's level missed its target for 10 of the 61 days, the indicator calculation would be  $600/610=98.4\%$ .

**Performance Goal: Dams That Meet Federal Guidelines for Dam Safety (PPF)**

**TVA General Goal:** Maintain the value of federal assets entrusted to TVA while supporting their wise use by and for the public in support of TVA's mission.

**TVA Strategy:** Ensure TVA dams, bridges, and other structures meet applicable guidelines and are maintained in a safe manner.

**Description:** TVA is responsible for the inspection, operation, maintenance, and repair of 49 dams which are between 19 and 87 years old. Concrete growth and deteriorating operating machinery threaten the integrity and operations of spillways, powerhouses, and locks. In accordance with federal guidelines, TVA is modifying its dams to ensure they meet modern-day design criteria for the probable maximum flood and maximum credible earthquake.



FY2001 Target: 47 dams

**Target Explanation:** This performance goal tracks TVA's progress in completing required hydrologic and seismic modifications to bring its dams into compliance with modern-day design criteria to pass probable maximum floods or withstand maximum credible earthquakes. (Note: With the transfer of Land Between The Lakes to the Department of Agriculture, the number of dams for which TVA is responsible was reduced from 54 to 49. Also, the targets for FY2000 and FY2001 were adjusted because of a decision to defer completion of modifications at Chickamauga Dam until FY 2004 to be in step with work on the navigation lock.)

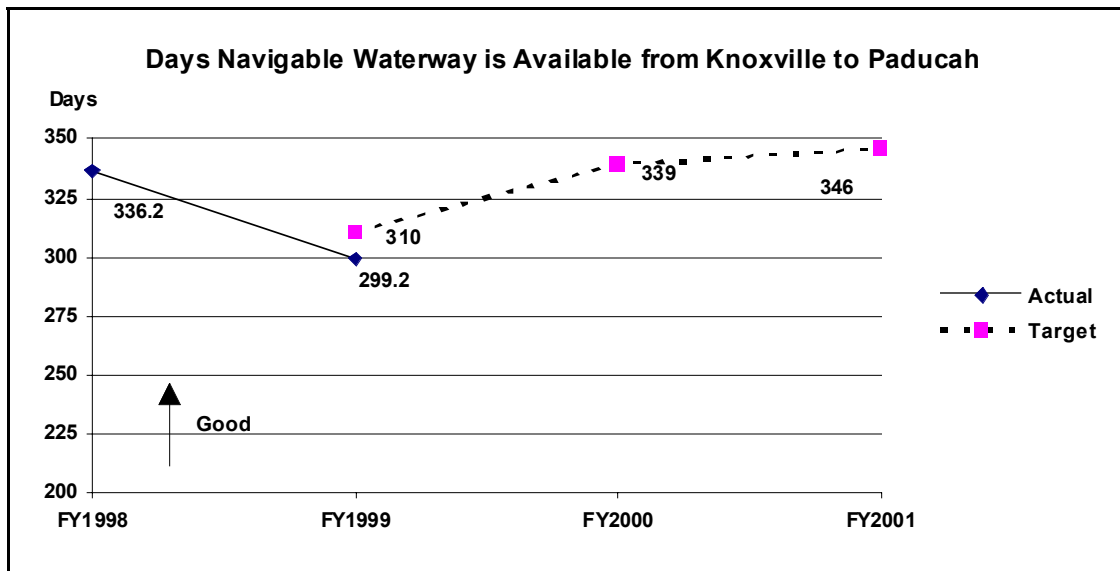
**Measurement and Validation:** A dam is considered in compliance when all work related to meet modern-day design criteria is completed.

**Performance Goal: Days Navigable Waterway is Available from Knoxville to Paducah (PPF)**

**TVA General Goal:** Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.

**TVA Strategy:** Maintain a navigable commercial waterway from Knoxville to Paducah while making system enhancements to improve safety and increase shipper savings.

**Description:** Commercial shippers rely on TVA to maintain locks and other navigation system components in operable condition and to operate the river system to minimize disruptions to navigation. TVA has a statutory responsibility to maintain a navigable channel along the Tennessee River from Knoxville to Paducah.



FY2001 Target: 346 days

**Target Explanation:** TVA's goal is to minimize the number of days the navigation system is inoperable due to lock outages and unscheduled river closures. Targets reflect outages scheduled at dams where there are no auxiliary locks.

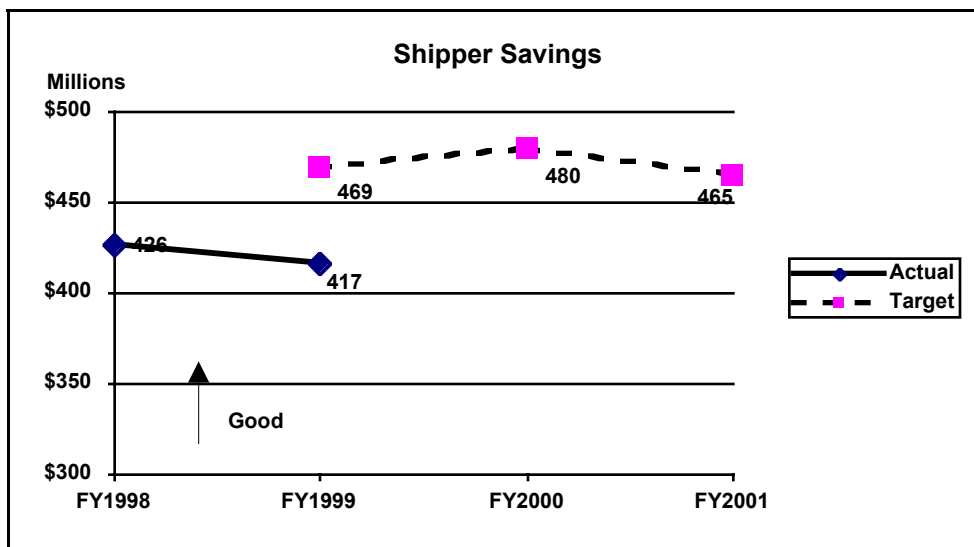
**Measurement and Validation:** This indicator measures instances when any segment of the Tennessee River is closed to navigation traffic. Lock operation and maintenance reports are the source of this information.

## Performance Goal: **Shipper Savings (PPF)**

TVA General Goal: Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.

TVA Strategy: Maintain a navigable commercial waterway from Knoxville to Paducah while making system enhancements to improve safety and increase shipper savings.

Description: Commercial shippers rely on TVA to maintain locks and other navigation system components in operable condition and to operate the river system to minimize disruptions to navigation. TVA has a statutory responsibility to maintain a navigable channel along the Tennessee River from Knoxville to Paducah. Shipper savings include reductions in costs accruing to those shipping by barge. If the navigation system is not operable for extended periods of time, shipper savings are reduced.



FY2001 Target: \$465 million

Target Explanation: The target is based on projected traffic.

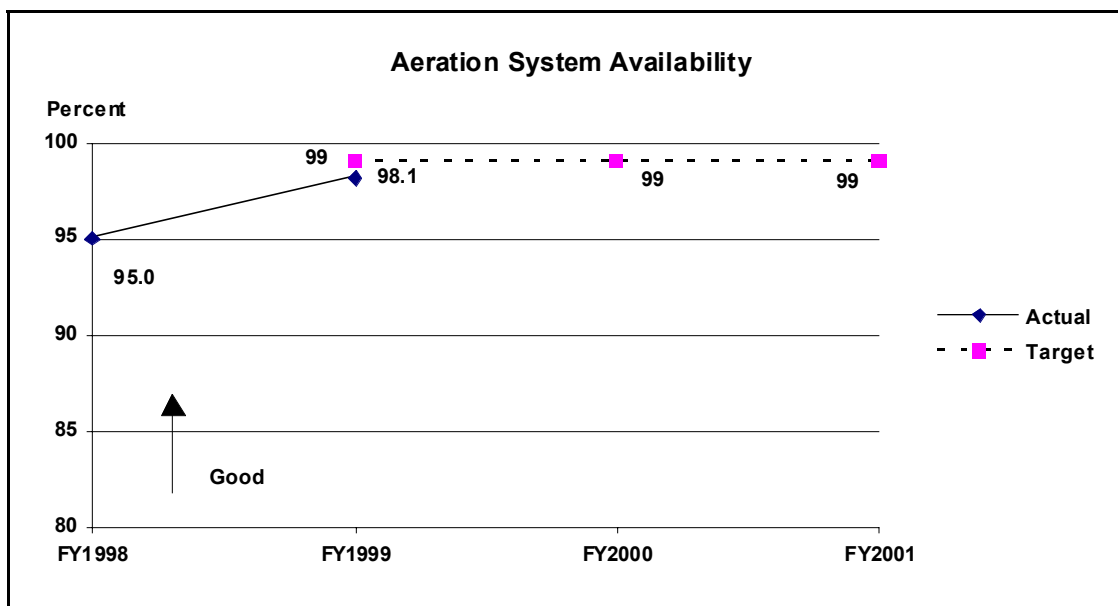
Measurement and Validation: Shipper savings is calculated as the product of the tons being shipped on the Tennessee River and the savings per ton attributed to barge transportation. Barge transportation is the cheapest mode for movement of certain commodities, thus barge transportation is compared in the indicator to the next least expensive mode which is generally rail carriage. In the indicator, average savings per ton is estimated by TVA to be \$8.10 (\$1995). This number was a product of a TVA study undertaken for the U. S. Army Corps of Engineers (USACE), Huntington District, in 1995 as a component of their update of the Kentucky Lock study. These modal transportation rates are a combination of survey data and estimates from TVA's Barge Costing Model and the Rebee Rail Costing model. The rates are estimated by component (line haul cost, transfer cost, loading and unloading cost) and do not include any "water compelled" rate effect, that is, what the rail rate would be expected to be without barge competition. Assumptions in the calculation reflect an estimated margin for carrier profit. The data used to estimate total current tonnage transported on the Tennessee River are a combination of river and lock data. The river data is published annually by the USACE Waterborne Commerce Statistical Center (WCSC) in New Orleans, Louisiana, with about a two year lag. The lock data are published by the USACE Water Resources Support Center in Fort Belvoir, Virginia with a two month lag. In the shipper savings indicator TVA navigation economists forecast Tennessee River traffic by year.

**Performance Goal:                   Aeration System Availability(PPF)**

TVA General Goal:                   Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.

TVA Strategy:                        Provide acceptable water quality.

Description: Dissolved oxygen levels, water temperature, and water flow rates are drastically altered by the vacillating effects of water storage and hydro generation processes. Fisheries, aquatic habitat, and potable water quality bear the most stress. TVA has installed aeration systems that have improved water quality at 16 dams. These systems are operated during the low dissolved oxygen season. This period is site-specific, but can range from mid-April to December. Ensuring that aeration systems are functioning helps TVA minimize adverse environmental impacts to aquatic habitats and potable water quality associated with dam operations.



FY2001 Target: >99%

Target Explanation: Targets based on expected forced outage rate of aeration equipment.

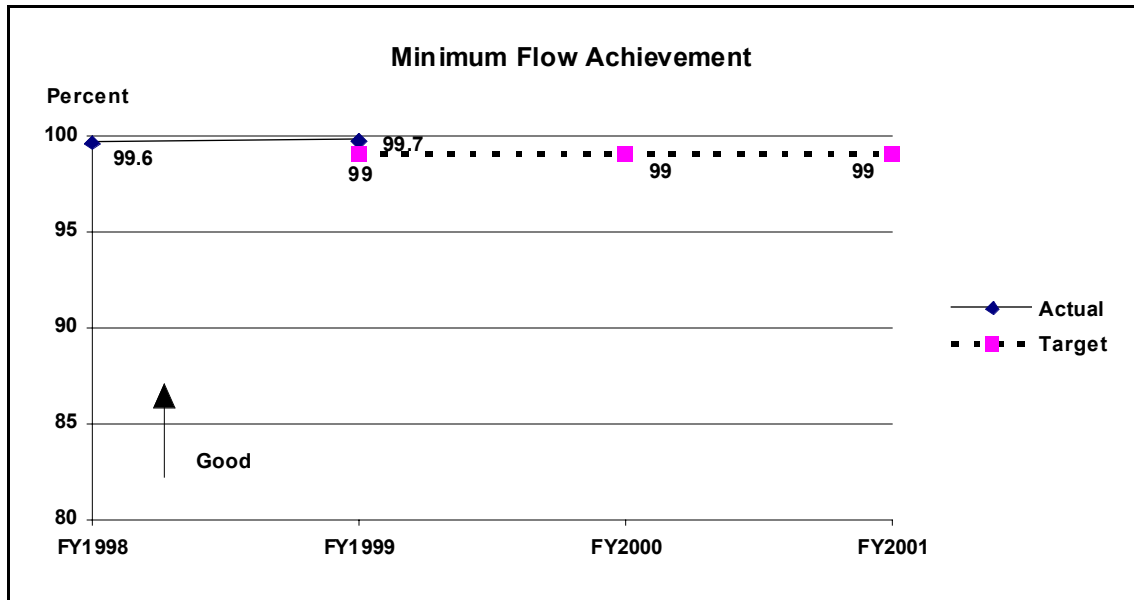
Measurement and Validation: For each of the dams with aeration systems installed, a planned operating schedule is determined. If a system is operable on days it is scheduled for use, it is counted as being available. The number of days that systems are available is divided by the total number of planned operating days to get the percent availability. Data are reported monthly and accumulated throughout the year to determine the annual performance.

**Performance Goal: Minimum Flow Achievement (PPF)**

TVA General Goal: Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.

TVA Strategy: Provide acceptable water quality.

Description: Dissolved oxygen levels, water temperature, and water flow rates are drastically altered by the vacillating effects of water storage and hydro generation processes. Fisheries, aquatic habitat, and potable water quality bear the most stress. TVA maintains minimum flows below 16 dams to improve the quality of releases. Sustaining these minimum flows helps TVA minimize adverse environmental impacts to aquatic habitats and potable water quality associated with dam operations.



FY2001 Target: 99%

Target Explanation: Targets based on planned operating schedules at 16 dams.

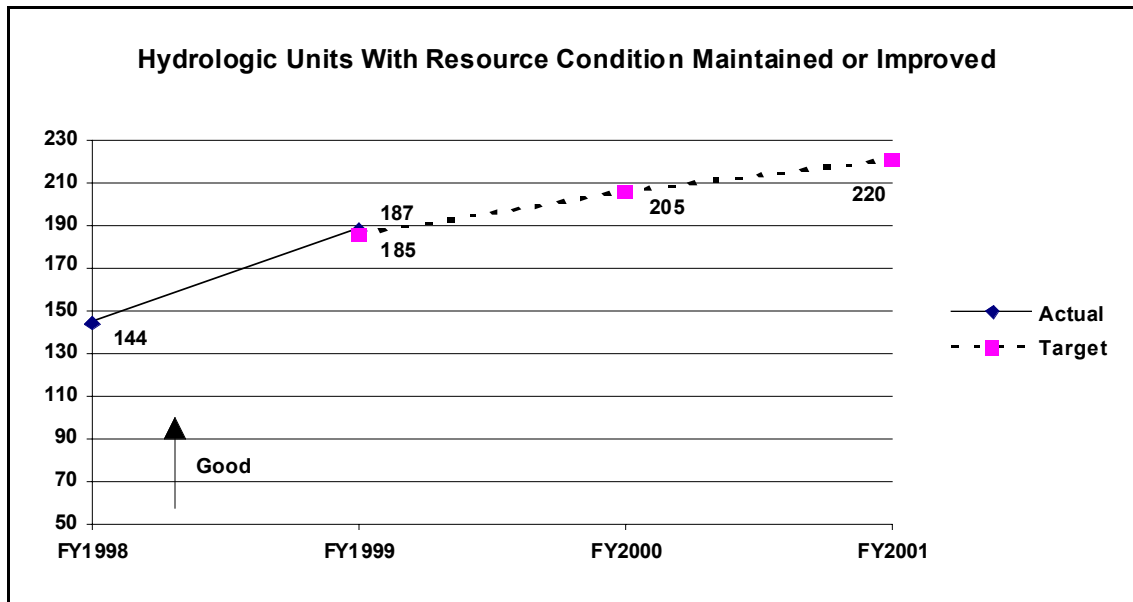
Measurement and Validation: For each of the 16 dams for which minimum flows have been established, TVA develops operating schedules that maintain necessary water flow throughout the year. Flow meters are installed on hydro generation units at the dams and required flow rates are maintained either through use of a small unit when the large unit is not in operation or by pulsing the large unit as needed. TVA monitors the water records provided by each plant to ensure that these flows and these schedules of pulses are met. The number of hours for which minimum flow rates are not met are divided by the total number of hours per year (nominally 8,760) and the resulting percentage is reported monthly and accumulated throughout the year to determine the annual performance.

**Performance Goal: Hydrologic Units With Resource Condition Maintained or Improved (PPF)**

TVA General Goal: Manage the natural resources of the Tennessee Valley region in an environmentally sustainable manner.

TVA Strategy: Improve the hydrologic condition of watersheds in the Tennessee Valley.

Description: There are 603 hydrologic units that make up the Tennessee River watershed. TVA leads cooperative efforts involving local and regional public and private partners to improve water quality by reducing nonpoint source pollution. Periodic assessments identify hydrologic unit status by evaluating stream and reservoir ecological health, suitability for customer use, and customer satisfaction.



FY2001 Target: 220

Target Explanation: Targets based on planned resource management activities in specified hydrologic units.

Measurement and Validation: TVA periodically assesses water resource conditions of hydrologic units with active water quality improvement efforts. These assessments measure how well waters in these hydrologic units support beneficial uses (fishing, swimming, support of fish and wildlife, water supply) desired by the various stakeholders. Quality of water resources is generally measured using an index of biological integrity which rates fish and aquatic insect populations against a known standard. Other types of measurements, such as presence of bacteria in swimming areas, are used to assess attainment of specific beneficial uses. Hydrologic unit ratings (Good, Fair, or Poor) are updated annually based on current information.

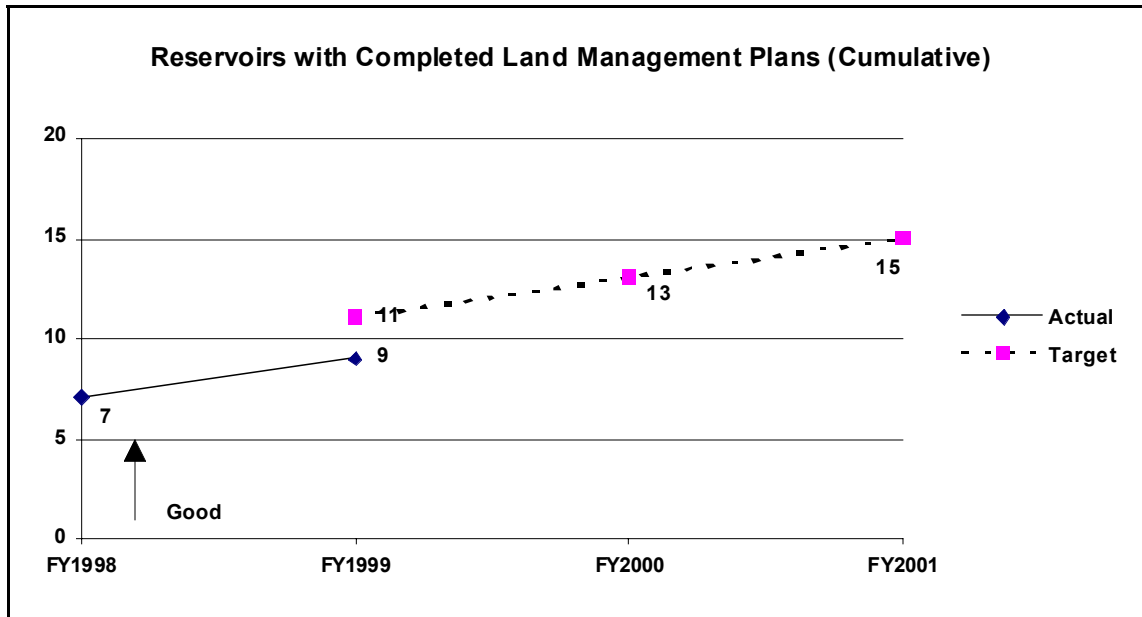


**Performance Goal:       Reservoirs With Completed Land Management Plans (PPF)**

TVA General Goal:       Maintain the value of federal assets entrusted to TVA while supporting their wise use by and for the public in support of TVA's mission.

TVA Strategy:            Support public uses of federal assets under TVA management that are consistent with statutory responsibilities while protecting the value of those assets for the future.

Description: TVA manages 293,000 acres of public land around reservoir projects spanning seven states. The reservoir system is a nationally important recreation and tourism resource that attracts millions of visits per year from residents and tourists who enjoy water-based sports and contribute to a \$1 billion industry. Waterfront properties are highly valued and generate demands for growth that often conflict with the protection of public resources and wildlife habitat. TVA manages these potential conflicts with the use of land management plans that establish allowable uses for TVA property. TVA will develop comprehensive plans for 27 reservoirs.



FY2001 Target: 15 (Cumulative)

Target Explanation: TVA will complete 4 reservoir land management plans in FY 2000 and 2 additional plans in FY 2001.

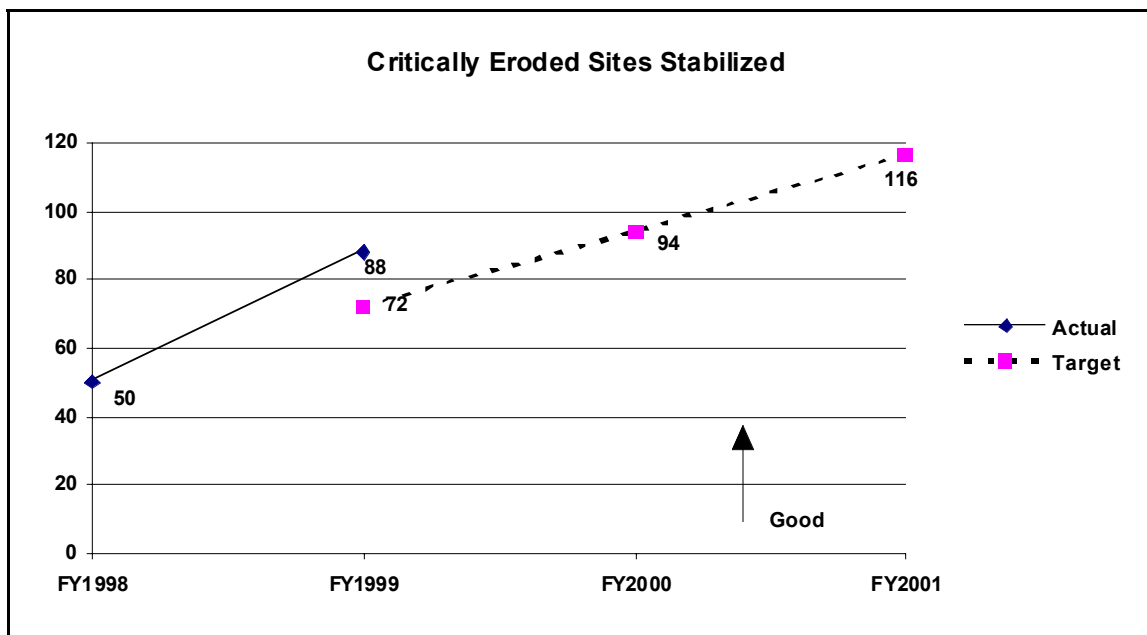
Measurement and Validation: TVA will report each reservoir land management plan completed when it is published and made available to the public.

**Performance Goal: Critically Eroded Sites Stabilized (PPF)**

TVA General Goal: Manage the natural resources of the Tennessee Valley region in an environmentally sustainable manner.

TVA Strategy: Manage reservoir lands to protect cultural resources, reduce erosion, and provide wildlife habitat.

Description: TVA's public shorelines are its most visible and accessible land resource. Reservoir lands throughout the Valley have highly eroded strips of shoreline and riparian area. TVA has estimated that nearly 110 miles, or 1 percent of its shoreline, may be critically eroding. Left unprotected, erosion will result in deterioration of the beauty and value of public shoreline assets, the loss of shoreline and associated wildlife habitat, and increased nonpoint source water pollution. Eroded sites may be up to 25 feet in height and several hundred feet in length. Treatments stress both vegetative and structural approaches that are ecologically friendly as well as combination treatments of vegetation and structures.



FY 2001 Target: 116 (cumulative)

Target Explanation: TVA expects to stabilize 22 additional sites in FY 2001.

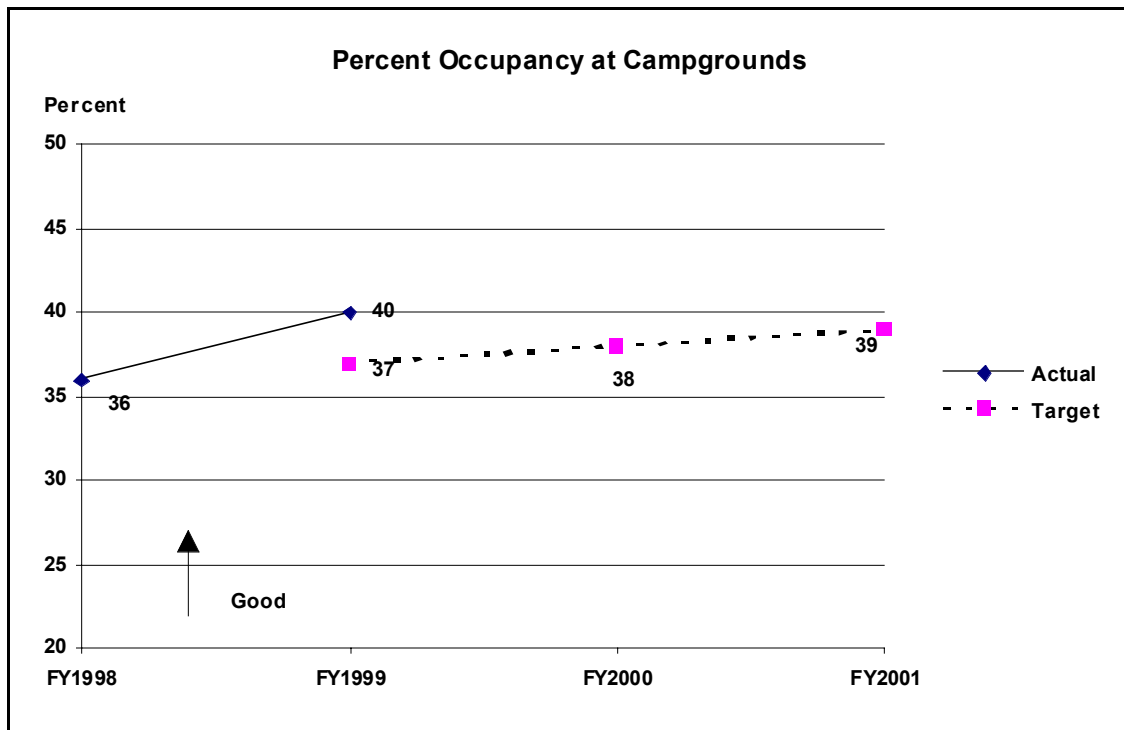
Measurement and Validation: For FY 2001, TVA will identify 22 specific critically eroding sites to be stabilized. Site-specific stabilization approaches will be developed and implemented. Following completion of stabilization activities, sites are monitored and maintained as required to ensure that erosion has been contained.

**Performance Goal: Percent Occupancy at Campgrounds (PPF)**

TVA General Goal: Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.

TVA Strategy: Support recreational uses of the river system and associated federal lands.

Description: Recreational users of TVA camping sites and recreation facilities express a high level of interest in the maintenance and availability of the region's natural resources for recreational and educational use. To determine the extent to which existing camping facilities are being utilized, TVA measures total camping sites occupied as a percentage of total sites available at a given time.



FY 2001 Target: 39 percent occupancy.

Target Explanation: Target set based on past history and planned activities expected to increase visitation to TVA recreation areas.

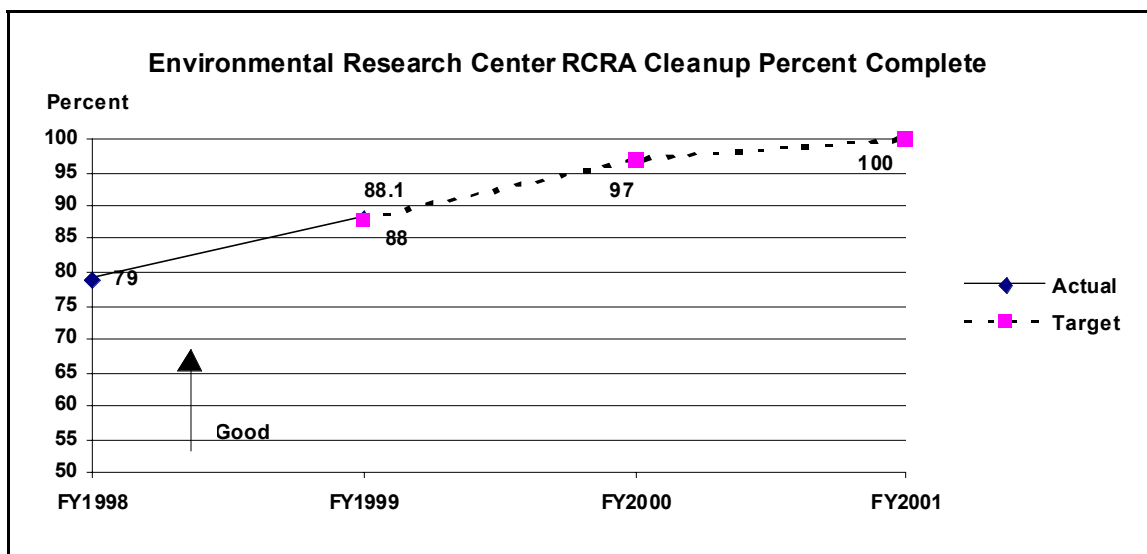
Measurement and Validation: TVA divides the number of paid camping unit nights by the total number of camping sites available (calculated by multiplying campground capacity by the number of nights the campgrounds are open). Data are reported monthly and are accumulated throughout the year to report the annual performance.

**Performance Goal: Environmental Research Center RCRA Cleanup (ERC)**

TVA General Goal: Manage the natural resources of the Tennessee Valley region in an environmentally sustainable manner.

TVA Strategy: Operate and maintain TVA facilities in accordance with environmental regulations.

Description: TVA is mandated by Federal law to complete the cleanup of contaminated sites at the Environmental Research Center (ERC) reservation in Muscle Shoals, Alabama. The Resource Conservation and Recovery Act (RCRA) Corrective Action Program supports the safe cleanup of contamination caused by decades of federally-funded munitions and fertilizer research and development activities at the ERC.



FY 2001 Target: 100 percent complete

Target Explanation: Percent completion based on planned remediation activities. Assumes no change in regulator requirements.

Measurement and Validation: TVA has developed a plan for achieving cleanup and remediation of the ERC site based on regulator requirements. This indicator tracks completion of these planned cleanup activities. Performance is reported based on the following formula:

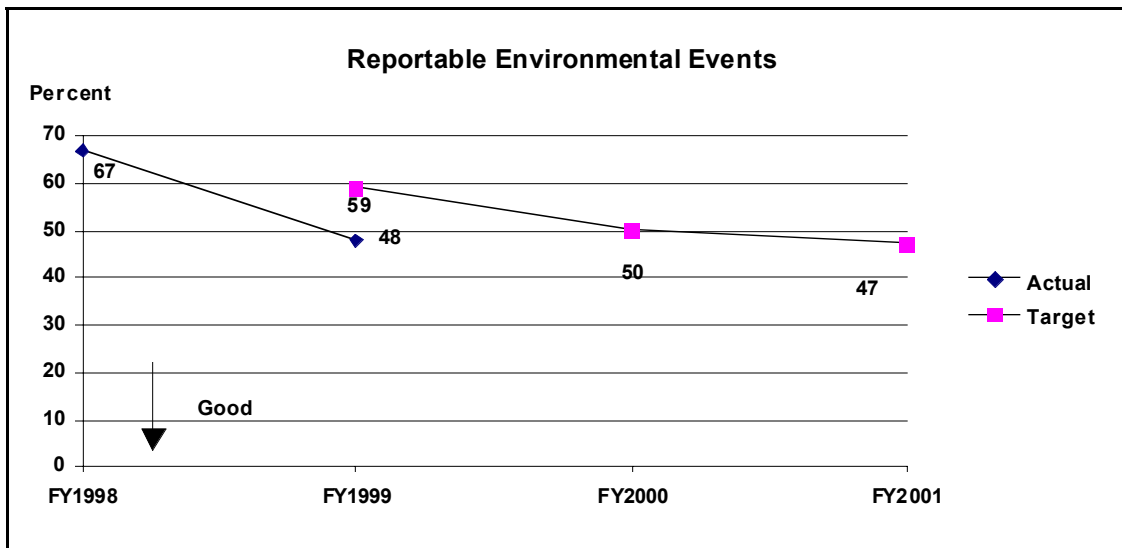
ERC Site Cleanup (percent Complete)= Percent Complete ERC RCRA Corrective Action project (times 0.5) plus Percent of Designated ERC Structures Demolished (times 0.45) plus Percent of Surplus Chemical Disposal (times 0.05).

**Performance Goal: Reportable Environmental Events (All)**

TVA General Goal: Manage the natural resources of the Tennessee Valley region in an environmentally sustainable manner.

TVA Strategy: Operate and maintain TVA facilities in accordance with environmental regulations.

Description: Energy customers and the general public expect TVA to be environmentally responsible in conducting operations in order to protect public health, natural resources, and environmental quality. TVA measures the performance of its operations in meeting environmental regulatory compliance requirements by monitoring occurrences of violations at TVA facilities that trigger notifications to, or enforcement actions by, a regulatory agency.



FY 2001 Target: 47

Target Explanation: Targets represent a TVA-wide consolidated performance goal. Targets are reviewed and adjusted annually based on actual performance levels, projected changes in operational conditions and regulatory requirements, and planned improvements.

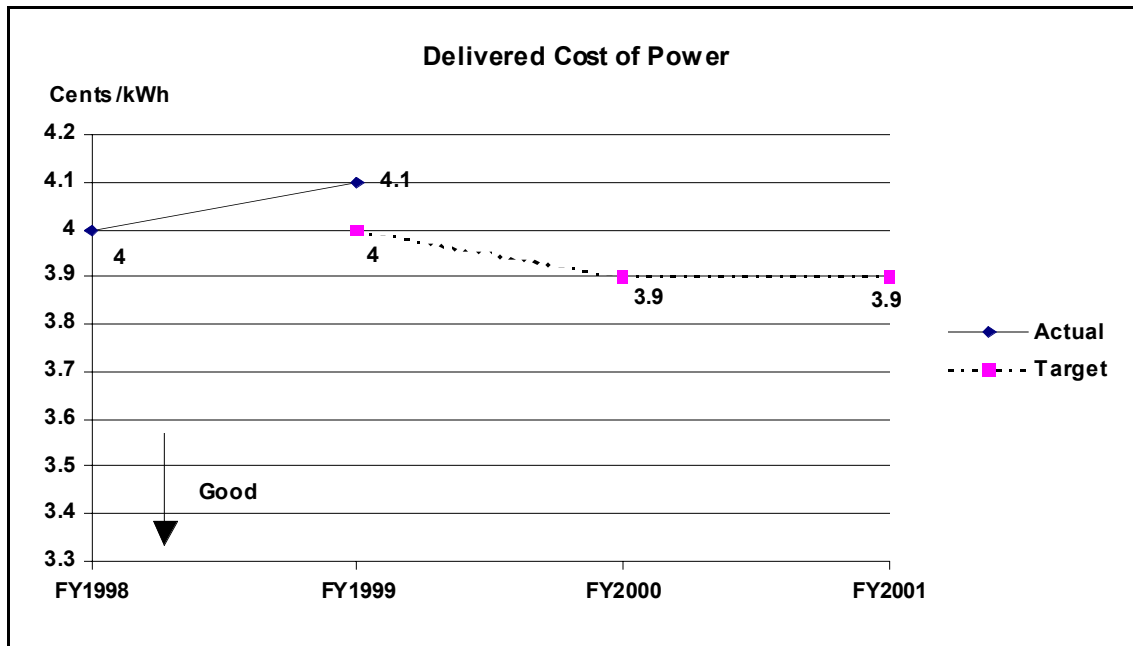
Measurement and Validation: Each organization is responsible for reporting occurrences of violations that trigger notifications to, or enforcement actions by, a regulatory agency. Data are reported monthly and accumulated throughout the year to determine annual performance.

**Performance Goal: Delivered Cost of Power (PPF)**

**TVA General Goal:** Continue to be the electrical energy supplier of choice for customers in the Tennessee Valley by offering adequate supplies of electrical energy and energy-related services at competitive prices.

**TVA Strategy:** Prepare for utility deregulation by reducing TVA's delivered cost of power to 3.4 - 3.5 cents/kWh by 2007.

**Description:** The cost of electric power is crucial to energy customers, who depend on a low-cost, efficient, and dependable source of energy in order to be competitive in their businesses and cost-effective in their household budgets. To determine the cost of providing power to its energy customers, TVA divides its total costs to deliver power (excluding accounting write-offs) by the total amount of power delivered. Over time, reducing its delivered cost of power enables TVA to remain competitive in a potentially deregulated and openly competitive environment. This assures TVA's customers competitively-priced electricity.



FY 2001 Target: 3.9 cents/kWh

**Target Explanation:** Target based on projected costs and energy sales.

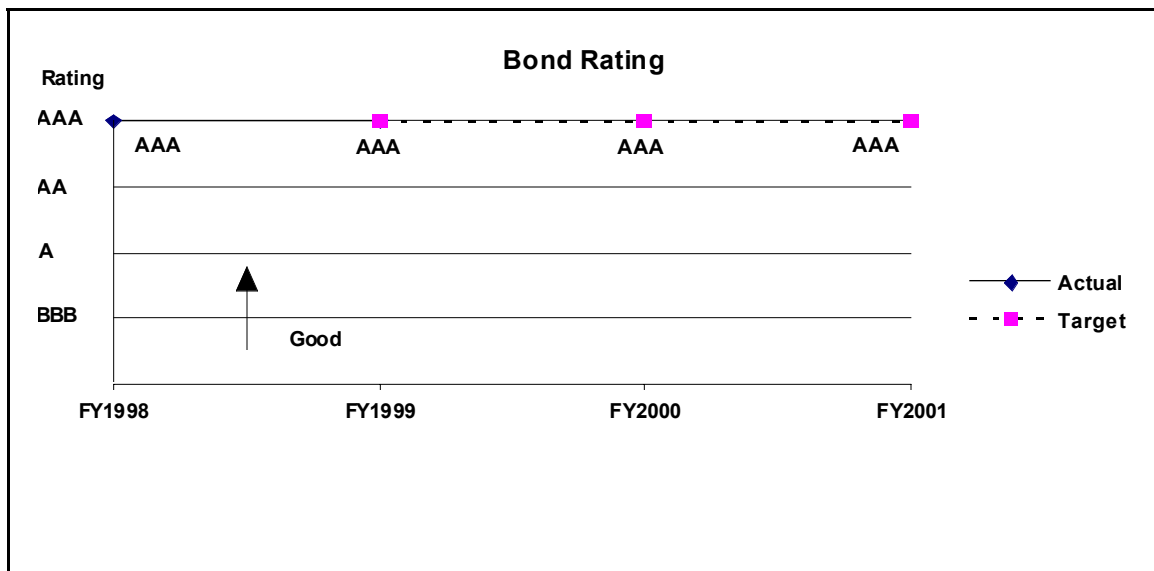
**Measurement and Validation:** The electric power industry standard for measuring total cost is expressed in cents per kilowatt hours produced. TVA sums its total costs from its income statement and divides them by the total kWh sold. The FY 2001 target reflects a slight increase in total costs (excluding write-offs) and an increase in energy sales.

**Performance Goal: Bond Rating (PPF)**

TVA General Goal: Continue to be the electrical energy supplier of choice for customers in the Tennessee Valley by offering adequate supplies electricity and energy-related services at competitive prices.

TVA Strategy: Maintain investor confidence that TVA will continue to be competitive and able to meet debt obligations.

Description: While TVA has taken actions to cap its debt, there will still be a need to refinance maturing debt. This performance measure monitors TVA's success in maintaining its position as an attractive investment.



FY 2001 Target: Triple-A

Target Explanation: TVA must maintain its excellent bond rating to meet interest expense and debt reduction targets.

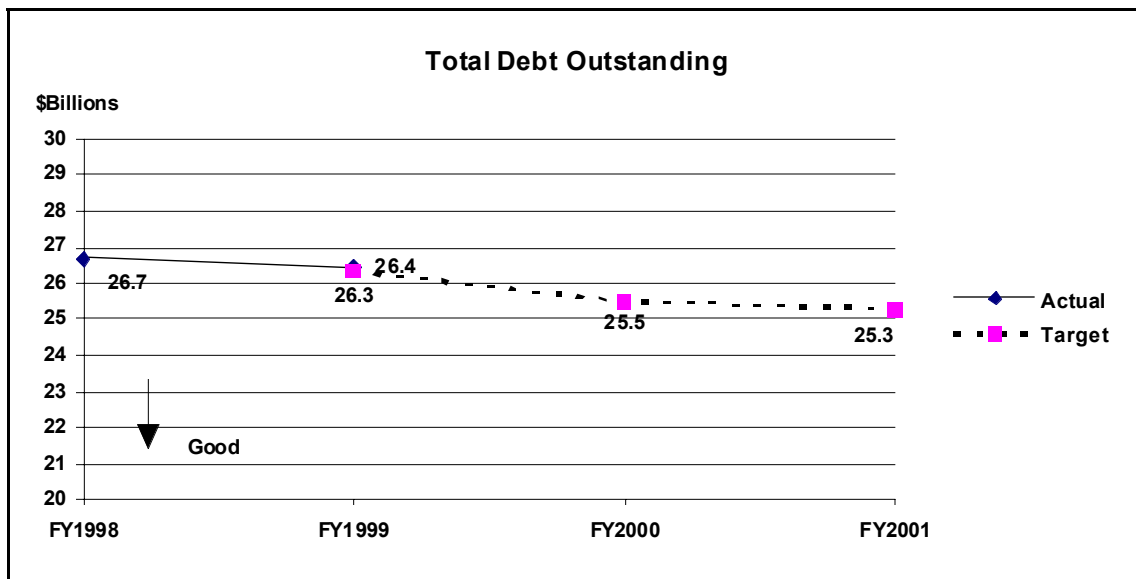
Measurement and Validation: TVA will report its bond rating as reported by the major bond rating agencies as of the end of September each year.

**Performance Goal: Total Debt Outstanding (PPF)**

**TVA General Goal:** Continue to be the electrical energy supplier of choice for customers in the Tennessee Valley by offering adequate supplies of electrical energy and energy-related services at competitive prices.

**TVA Strategy:** Increase agency flexibility by altering the TVA cost structure from the current high fixed-to-variable cost relationship to a structure that is better able to adjust to a volatile marketplace.

Description: TVA has a statutory debt ceiling of \$30 billion and the TVA Board has established an internal debt limit of \$28 billion. TVA's debt increased in past years to help finance the construction and modification of its nuclear plants and other power system facilities. TVA will best be able to meet the projected market price for electricity by reducing its high fixed costs for interest (now about 28% of TVA's total cost of power). With the completion of Watts Bar Unit 1 and other major projects, a continued emphasis on cost control, and expected increases in power sales revenue, TVA will have meaningful debt reductions beginning in 1997. As TVA reduces and manages its outstanding debt, thus reducing its interest costs, it will shift its cost structure to one that is better able to adjust to the increased volatility of a future deregulated energy market.



FY 2001 Target: \$25.3 billion

**Target Explanation:** Based on its FY98 rate increase and planned cost control initiatives, TVA expects to have sufficient cash from operations to reduce its outstanding debt by \$2.4 billion between FY 1997 and FY 2001. Debt was reduced by \$1.0 billion for the period FY 1997 - FY 1998.

**Measurement and Validation:** TVA will report its outstanding debt at the end of each fiscal year using its standard financial reporting systems and audited financial statements.



**Performance Goal:**

**Wholesale Customers With Continuing Contracts (PPF)**

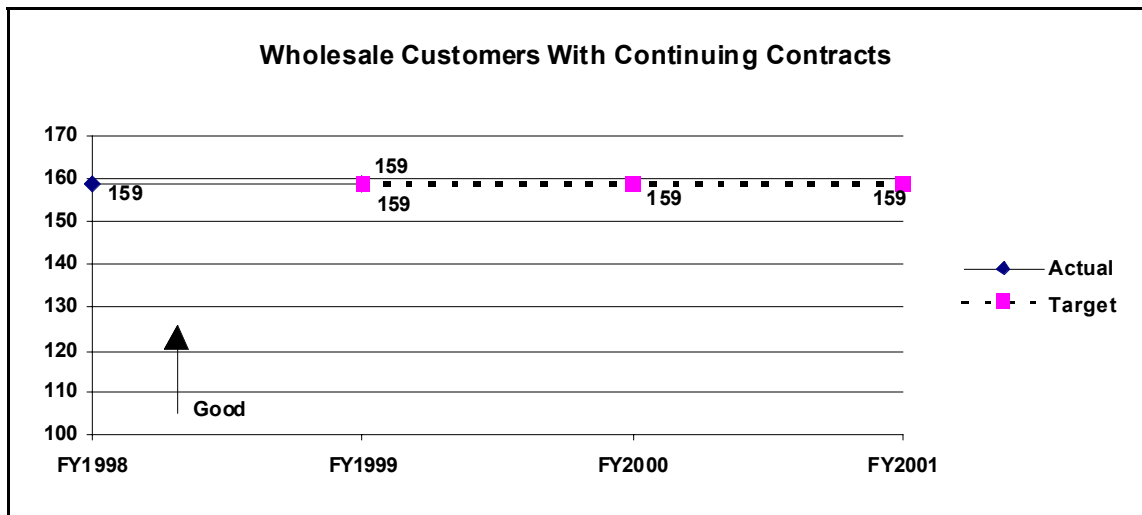
**TVA General Goal:**

Continue to be the electrical energy supplier of choice for customers in the Tennessee Valley by offering adequate supplies of electrical energy and energy-related services at competitive prices.

**TVA Strategy:**

Build stakeholder support and value by developing opportunities for mutual support and partnership.

Description: TVA's existing power contracts with its distributors have rolling five, ten, or fifteen-year terms. In order to end its commitment to purchase TVA power, a distributor must give notice either 5, 10, or 15 years (as applicable) prior to the desired contract termination date. In anticipation of utility industry restructuring, many of TVA's customers are seeking a more flexible position from which to respond to competitive challenges. TVA is working to address issues of distributors that want more contract flexibility to meet their needs, while not shifting the cost obligations of these arrangements to other customers. These new contracting alternatives, in combination with TVA's continued emphasis on providing low-cost, reliable power, will help TVA retain its present customer base.



FY 2001 Target: 159

Target Explanation: TVA will maintain its existing customer base.

Measurement and Validation: On September 30, 2001, TVA will identify the number of its distributors that have continuing contracts (that have not provided notice of intent to terminate their contract).

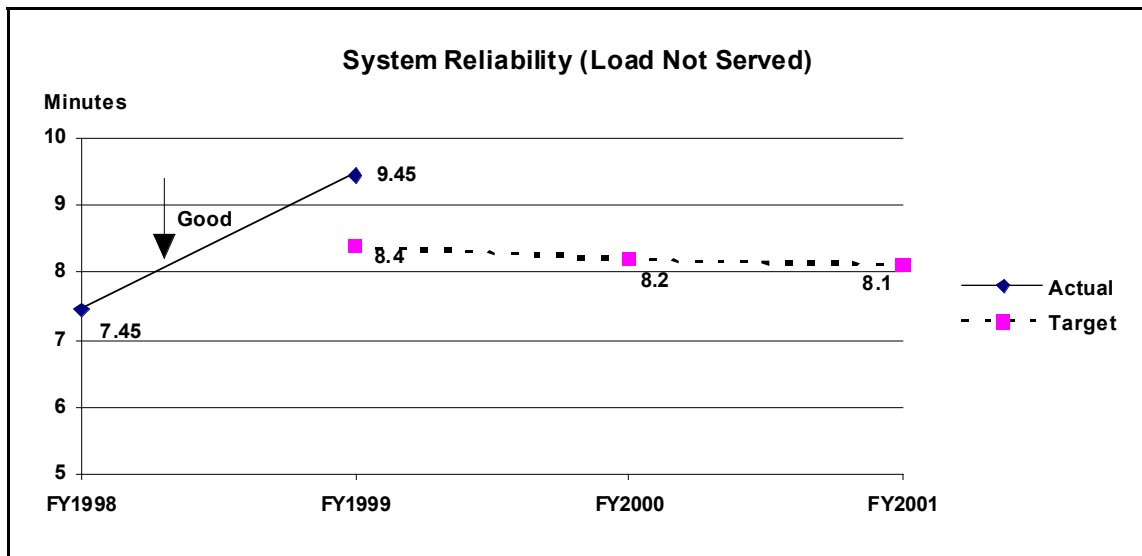
**Performance Goal:****System Reliability — Load Not Served (PPF)****TVA General Goal:**

Continue to be the electrical energy supplier of choice for customers in the Tennessee Valley by offering adequate supplies of electrical energy and energy-related services at competitive prices.

**TVA Strategy:**

Ensure that TVA's electric power generation and transmission system has the capacity to meet customer demand while maintaining required levels of reliability and power quality.

Description: Energy customers require a reliable power supply in order to remain competitive and to maintain consumers' safety and convenience. Load Not Served (LNS), measures the reliability of TVA's power supply in terms of minutes the average customer is without power each year.



FY 2001 Target: 8.1 minutes

Target Explanation: Fluctuations between ten minutes and eight minutes per year reflect the presence or absence of extremely violent weather conditions, particularly lightning strikes, ice storms, and tornado activity) and unforeseen major equipment failures (such as power transformers and power circuit breakers). Performance targets are based on projects designed to reduce LNS and on aggressive maintenance efforts.

Measurement and Validation: This indicator shows the amount of time an average customer could expect to be interrupted if its load was constant throughout the year. The calculation uses current billing data to estimate the amount of load which was interrupted, the actual clock time of the interruption as related to TVA problems, the load actually served during the time period being examined, knowledge of load cycles for the customer, and the number of minutes in the interruption period.

The formula is:

$((\text{LNS in MWh}) / (\text{LS} + \text{LNS in MWh})) * \text{the number of minutes in the period.}$

For example, a 10 MW load is interrupted for 1 hour, resulting in 10 MWh of LNS. If the year long load served is 600,000 MWh, the LNS in minutes is:

$((10 / (10 + 600,000)) * 525,600 (\text{minutes in a year})) = 8.92 \text{ minutes of LNS.}$

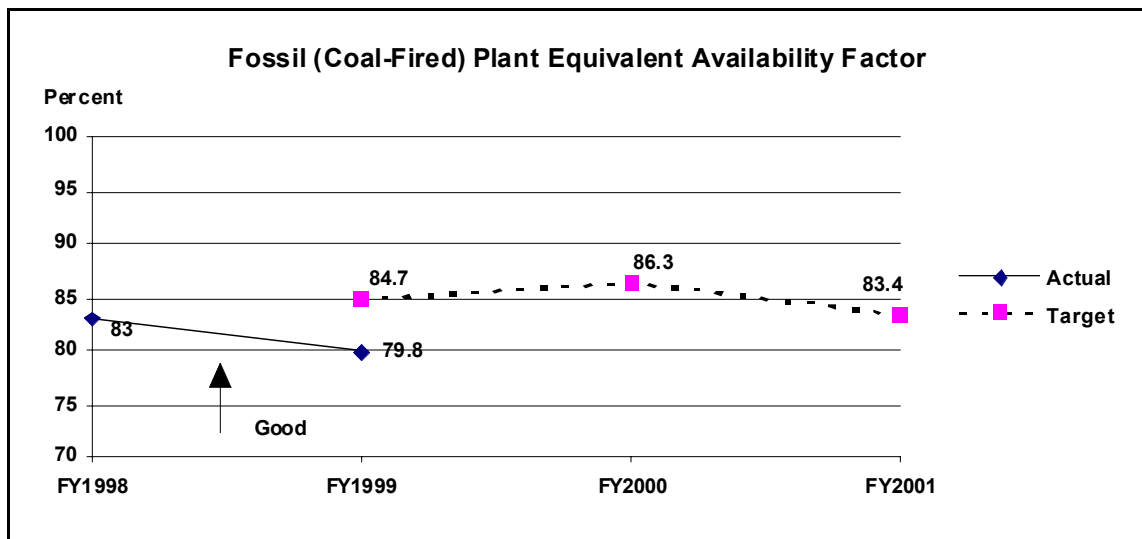
The result is a normalized LNS in minutes that is calculated regardless of the load size.

**Performance Goal: Fossil (Coal-Fired) Plant Equivalent Availability Factor (PPF)**

**TVA General Goal:** Continue to be the electrical energy supplier of choice for customers in the Tennessee Valley by offering adequate supplies of electrical energy and energy-related services at competitive prices.

**TVA Strategy:** Ensure that TVA's electric power generation and transmission system has the capacity to meet customer demand while maintaining required levels of reliability and power quality.

**Description:** All energy customers require an adequate supply of electricity at lowest price in order to add value to their customers. To ensure that TVA can meet customer demand, TVA's coal-fired plants must operate at optimum availability, defined as the ratio of the amount of energy that can be provided divided by the maximum amount of energy that could be produced over a given period of time.



FY 2001 Target: 83.4 percent

**Target Explanation:** Improvement of fossil plant performance reflects significant work to improve reliability of aging power plants. Fluctuations in the rate of improvement and annual targets are due to the yearly variations in the duration of major maintenance work performed and unanticipated equipment failures.

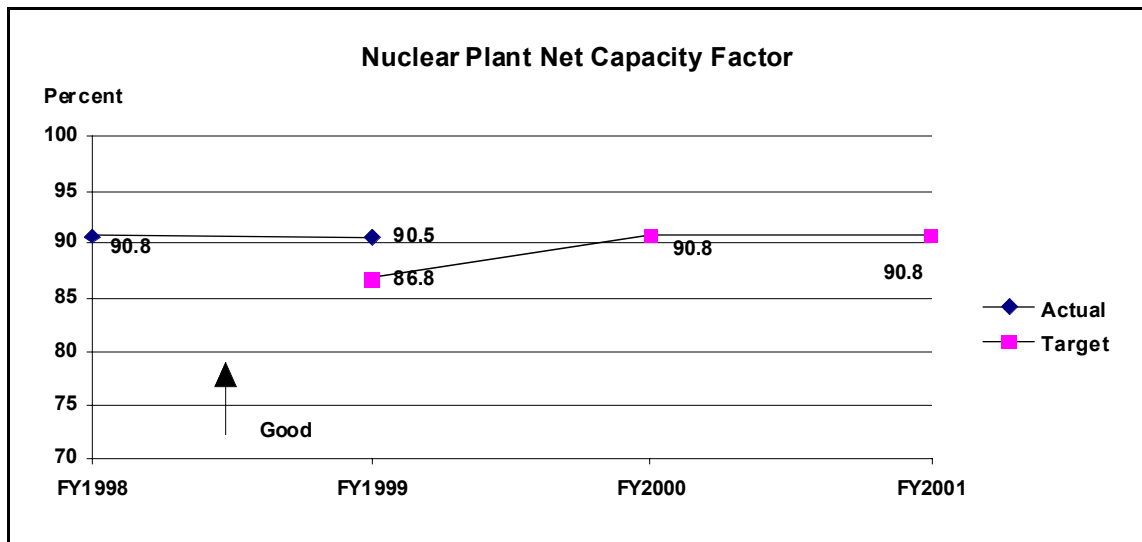
**Measurement and Validation:** TVA records the energy that can be provided by each fossil unit and divides it by the product of the unit's capacity and number of hours in the measurement period (nominally 8,760). The availability of all units are combined to determine the annual fossil system equivalent availability factor.

**Performance Goal: Nuclear Plant Net Capacity Factor (PPF)**

TVA General Goal: Continue to be the electrical energy supplier of choice for customers in the Tennessee Valley by offering adequate supplies of electrical energy and energy-related services at competitive prices.

TVA Strategy: Ensure that TVA's electric power generation and transmission system has the capacity to meet customer demand while maintaining required levels of reliability and power quality.

Description: To ensure that all nuclear power plants are operating at needed capacity, TVA monitors the "net capacity factor" which is the ratio of the amount of electricity generated divided by the maximum amount of energy that could have been produced by the plant over a specified period of time.



FY2001 Target: 90.8 percent

Target Explanation: TVA's nuclear plant net capacity factor shows steady improvement with fluctuations in yearly values caused by scheduling of refueling outages.

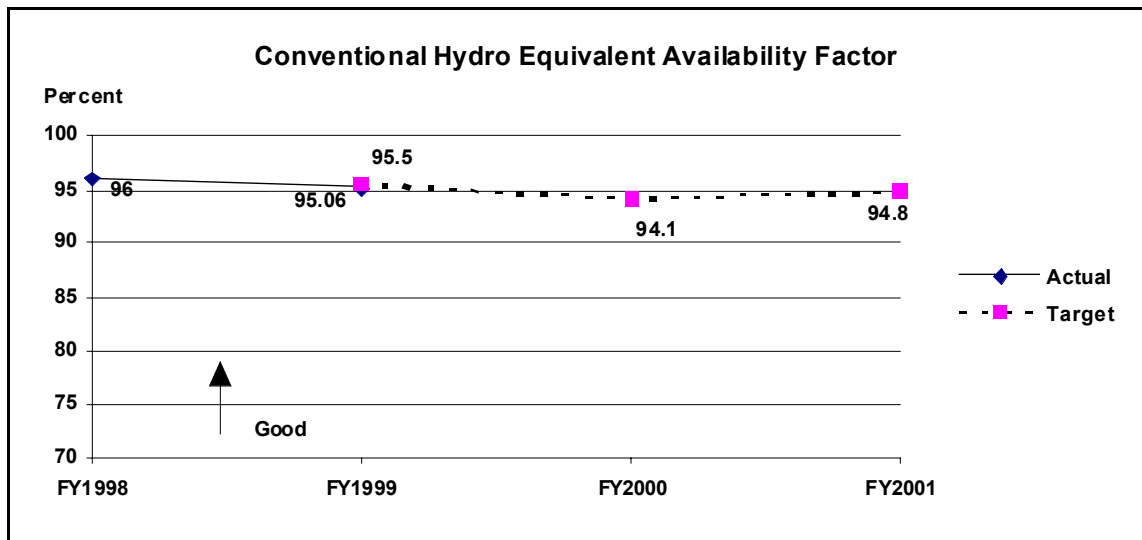
Measurement and Validation: TVA records the energy produced by each nuclear plant and divides it by the product of the unit's capacity and number of hours in the measurement period (nominally 8,760). The availability of all units are combined to determine the annual net capacity factor.

**Performance Goal: Conventional Hydro Equivalent Availability Factor (PPF)**

**TVA General Goal:** Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.

**TVA Strategy:** Optimize the value of hydro generation subject to flood control, navigation, and water quality constraints.

**Description:** TVA's hydroelectric plants work to achieve high performance in plant availability. The hydroelectric plants help to satisfy energy customers' requirements for reliable, available electric power. Hydro-electric plant availability is calculated as the amount of energy that can be generated divided by the maximum amount of energy that could be produced over a set period of time.



FY 2001 Target: 94.8 percent

**Target Explanation:** This performance goal shows steady performance at a best-in-class level. Planned outages are a major factor in determining the equivalent availability factor and can vary year-to-year depending on maintenance and plant improvement schedules.

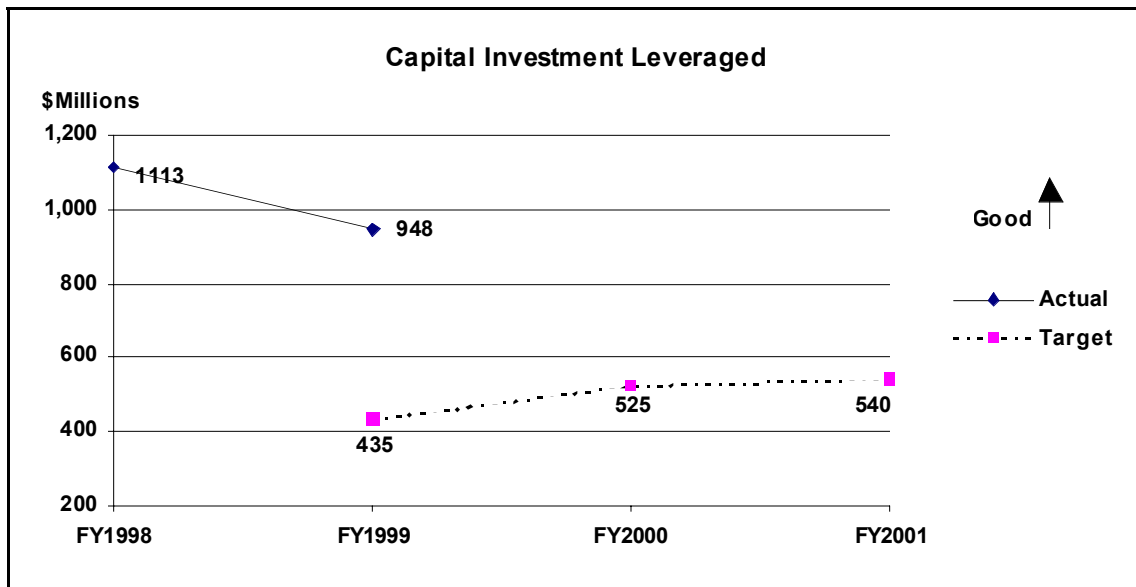
**Measurement and Validation:** TVA records the energy that can be produced by each hydro unit and divides it by the product of the unit's capacity and number of hours in the measurement period (nominally 8,760). The availability of all units are combined to determine the annual hydro system equivalent availability factor.

**Performance Goal: Capital Investment Leveraged (PPF)**

TVA General Goal: Positively impact the capacity for economic development in the Tennessee Valley Region.

TVA Strategy: Create and expand opportunities for business and industrial development in the TVA region.

Description: Since 1933, TVA has played a significant role in economic and community development of the Tennessee Valley. Energy customers are interested in the economic development and vitality of their communities resulting from TVA's Economic Development projects, which focus on expanding and attracting industrial and commercial development with low-cost, reliable electric power. In this performance goal, TVA is measuring the capital investment by key public and private partners of projects in which TVA participates. The capital investment supports the generation of commerce in the distributor customer's market areas.



FY2001 Target: \$540 million

Target Explanation: Targets based on expected leverage ratios for projects meeting TVA participation criteria.

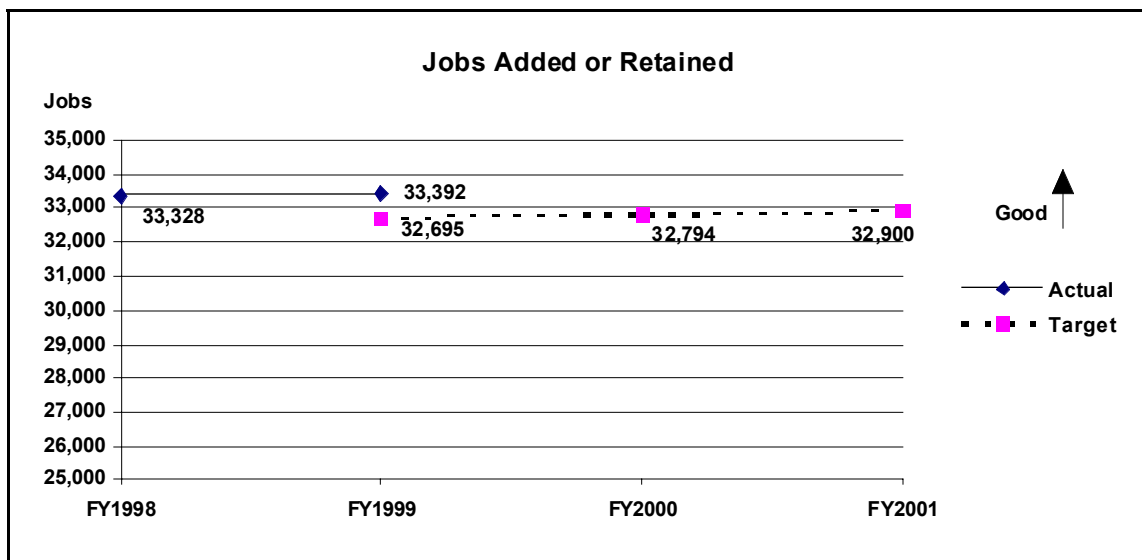
Measurement and Validation: Data are reported based on agreements reached and commitments made to establish or expand industrial capacity in the Tennessee Valley.

**Performance Goal:                   Jobs Added and Retained (PPF)**

TVA General Goal:                   Positively impact the capacity for economic development in the Tennessee Valley Region.

TVA Strategy:                        Create and expand opportunities for business and industrial development in the TVA region.

Description: Business investment commitments precede growth in employment opportunities. TVA energy customers are interested in TVA's contribution to the economic development and vitality of their communities as it relates to hiring and jobs created. This performance goal measures the number of jobs added or retained by firms that receive technical or financial assistance from TVA, as well as jobs added or retained with Regional Industrial Development Association (RIDA) assistance, in recognition of TVA's reimbursement to distributors of 50% of their support to RIDAs. (Note: the title of this indicator was changed from "Jobs Created" to more accurately represent the focus of TVA's Economic Development efforts in this area.)



FY2001 Target: 32,900 jobs added or retained.

Target Explanation: TVA has set the target as the optimum level of performance given the economic growth projections for the Tennessee Valley.

Measurement and Validation: Data are reported based on announcements of new jobs created/retained by firms that receive technical or financial assistance from TVA, as well as jobs created/retained with Regional Industrial Development Association (RIDA) assistance (Note: Previously this indicator included only one half of the jobs created/retained through RIDAs. The indicator was modified to reflect the increased focus TVA is placing on its business relationships with the RIDAs. Actuals and targets have been restated to include 100% of RIDA jobs created/retained).